

LAKE MANAGEMENT PLAN

Region 2	Area F212 Brainerd	D.O.W Number 18-308	County Crow Wing	D.O.W. Lake Name Pelican	Acreage 8,253										
<p>Long Range Goal: Maintain walleye abundance at or slightly above 10/GN. Maintain northern pike abundance below 5/GN. Maintain largemouth bass abundance above 100/hr. as measured by spring electrofishing with at least 30% of the catch being larger than 12 inches long and 10% being larger than 15 inches.</p>															
<p>Operational Plan:</p> <ol style="list-style-type: none"> 1. Stock walleye fry annually at a rate of 1,000/littoral acre (3,900,000 fry). 2. Stock walleye fingerlings on a contingency basis if fall electrofishing results in a catch rate of less than 30 yoy walleyes/hr for two consecutive years. Fingerlings to be stocked at a rate of 0.75 pounds/littoral acre (2,933 lbs.), but for no more than two consecutive years. 3. Conduct fall electrofishing annually to assess yoy walleye abundance. 4. Conduct spring electrofishing every second netting to assess largemouth bass population. Next time to be in 2009. 5. Test net on a three-year rotation, alternating between full assessments and gill net only assessments. Next netting to be a full lake survey, in 2009. Do a full lake survey every 12 years. 6. Pursue acquisition of AMA's when opportunities arise, as a habitat protection measure. 7. Use APM and DOW permit processes to help protect aquatic habitats. 8. Conduct creel survey in 2009 to update fish harvest data on this popular fishery. 9. Encourage and support riparian habitat restoration projects to enhance/improve fish habitat. 															
<p>Midrange Objective: Evaluate success of walleye stocking plan. Evaluate natural walleye reproduction by comparing with OTC marked fish. Obtain better information on northern pike and largemouth bass populations.</p>															
<p>Potential Plan:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">1. Monitor bass tournaments</td> <td style="width: 20%; text-align: right;">1,000.</td> </tr> <tr> <td>2. Acquire an AMA</td> <td style="text-align: right;">1,000,000.</td> </tr> <tr> <td>3. Annual OTC marking of WAE fry (Study IV)</td> <td style="text-align: right;">1,000./yr</td> </tr> <tr> <td>4. Annual gillnetting to monitor WAE population</td> <td style="text-align: right;">3,000/yr.</td> </tr> <tr> <td colspan="2" style="text-align: center;">TOTAL \$ 1,005,000.</td> </tr> </table>						1. Monitor bass tournaments	1,000.	2. Acquire an AMA	1,000,000.	3. Annual OTC marking of WAE fry (Study IV)	1,000./yr	4. Annual gillnetting to monitor WAE population	3,000/yr.	TOTAL \$ 1,005,000.	
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<p>NARRATIVE: (Historical perspectives - various surveys; past management; social considerations; present limiting factors; survey needs; land acquisition; habitat development and protection; commercial fishery; stocking plans; other management tools; and evaluation plans)</p>				<p>Check the appropriate boxes below:</p> <ul style="list-style-type: none"> <input type="checkbox"/> BWCAW <input type="checkbox"/> Superior National Forest <input type="checkbox"/> Chippewa National Forest <input type="checkbox"/> Leech Lake Indian Reservation <input type="checkbox"/> 1854 Ceded Territory <input type="checkbox"/> 1837 Ceded Territory <input type="checkbox"/> Fond du Lac Indian Reservation <input type="checkbox"/> Voyageurs National Park 											
Primary Species Management: Walleye		Secondary Species Management: Largemouth Bass, Northern Pike													
Area Supervisor Signature:		Date:		Date sent from DNR Area Fisheries to USFS District Ranger:											
Regional Manager Signature:		Date:		Date sent from DNR Regional Fisheries to USFS Forest Supervisor:											

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Narrative:

Various Surveys: Initial lake survey was conducted in 1955. Resurveys were done in 1971, 1983 and 1993. Population assessments were done in 1978, 1988, 1998, 2003 and 2006. A DNR Lake Management Report in 1942 and 1938 survey by the University of Minnesota included gillnetting and shoreline seining information. Creel survey was done in the winter of 1938-39. An open water creel was done in 1999. Lake maps were done in 1938 and 1967.

Past Management: Management has been primarily stocking of various fish species beginning about 1916. Bass were last stocked in 1965; northern pike in 1971. Annual walleye stocking was done until 1993. Fry stocking was discontinued in 1985 and reinstated in 1999. Alternate year fingerling stocking was used between 1993 and 1998 to get a feel for the magnitude of natural walleye reproduction. Volunteers from the Pelican Lake Sportsman's Club conducted walleye egg deposition evaluations in the mid to late 1990's. Other management has included the review of APM and DOW permits and formal environmental reviews and WCA documents.

Social Considerations: The lakeshore has been heavily developed for several decades. Development currently includes about 550 private homes/cabins, a large resort/conference center, several smaller resorts, four RV parks and a youth camp. Four public accesses are present. A DNR forestry campground on the east side provides a public swimming beach. Angling is popular and pressure is considered to be heavy. Local opinion was generally not in favor of muskie stocking when it was proposed several years ago. The Pelican Lake Conservation Club has expressed interest and is assertive in the fisheries management plans for the lake. The club leadership took part in the preparation of this plan and will take part in future evaluations and volunteer activities.

Present Limiting Factors: Walleye fry stocking has enhanced natural reproduction since being reinstated in 1999, based on fall electrofishing results. The status of yellow perch as a forage base is a concern. Peak perch catches have historically been below the lake class median. If walleye abundance becomes too high it drives perch catches to very low levels. This has happened in the past, and must be guarded against in future walleye management plans.

Survey Needs: Netting should be moved to a 3-year rotation to better follow trends in walleye abundance. Nettings should alternate between gillnets only and using both gill and trap nets. Every fourth netting should be a full lake survey. The next scheduled netting will be a full lake survey, in 2009. Annual fall electrofishing should be done to monitor yoy walleye abundance, as part of the walleye management plan. Spring electrofishing for largemouth bass should be done to compliment gill/trap net assessments to monitor this population. The contribution of both stocked cohorts and natural reproduction should be studied in order to take better advantage of natural year classes of walleye. Therefore a project that includes OTC marking of walleye fry, prepared in Study IV format may be initiated in the future.

Habitat Protection: Protection of emergent aquatic species, especially bulrush, is critical to maintaining adequate populations of bass, panfish, northern pike and forage species. All MEPA and WCA documents covering formal environmental review for potentially damaging projects should be carefully reviewed. All DNR DOW and APM permit applications should be reviewed carefully, offering alternatives to first avoid, then minimize impacts. There is a need for expanded efforts to educate riparian owners about the benefits of natural/undisturbed riparian shorelines and fish habitat requirements.

Commercial Fishery: Commercial species have relatively low abundance in Pelican Lake and commercial fishing is not recommended.

Stocking Plans: Stock walleye fry annually at a rate of 1,000/littoral acre (3,900,000 fry). Evaluate year class strength with annual fall electrofishing. If year class strength falls below 30 yoy walleyes/hour for two consecutive years, fingerlings will be stocked in the second fall at a rate of 0.75 pounds/littoral acre (2,933 pounds). Fingerling stockings will be done on a contingency basis but will be done for no more than two consecutive years. Evaluate this plan with summer nettings.

Evaluation Plan: Evaluate walleye/perch abundance by netting every third year. Use annual fall electrofishing to evaluate walleye year class strength as part of the walleye management plan. Use spring electrofishing to evaluate the largemouth bass population. Ice-out netting may be used to evaluate the northern pike population when workloads permit. Spring walleye egg deposition checks may be done periodically, using volunteers, to monitor natural reproduction.

Netting summary for Pelican Lake. Catch is in numbers per net lift. Lake Class = 22												
Species	Gear	Q1-Q3	1942	1955	1971	1978	1983	1988	1993	1998	2003	2006
NOP	G	3.00-7.89	4.80	1.70	6.50	4.80	4.10	3.50	4.10	3.80	3.67	3.93
WAE	G	4.01-9.63	7.20	8.50	2.30	5.20	9.30	13.00	6.90	5.90	8.67	9.93
YEP	G	7.06-33.87	4.20	7.20	14.80	15.20	9.10	6.80	8.80	13.80	10.60	8.67
LMB	T	0.37-1.38	-	0.10	0.70	-	4.60	2.90	1.10	3.30	0.81	-
LMB	E	none	-	-	-	-	-	-	-	-	124.81	-
BLG	T	3.73-42.85	-	0.40	36.70	-	31.00	22.90	20.00	12.70	15.00	-
BLC	T	0.25-1.74	-	0.2	1.10	-	2.60	2.30	1.90	1.10	0.50	-